US009275235B2

US 9,275,235 B2

(12) **United States Patent**
Risan et al.

(10) **Patent No.:** **US 9,275,235 B2**
(45) **Date of Patent:** **Mar. 1, 2016**

(54) **METHOD AND SYSTEM FOR PREVENTING UNAUTHORIZED RECORDING OF MEDIA CONTENT ON AN APPLE OPERATING SYSTEM**

(71) Applicant: **Music Public Broadcasting, Inc.**, Santa Cruz, CA (US)

(72) Inventors: **Hank Risan**, Santa Cruz, CA (US); **Edward Vincent Fitzgerald**, Santa Cruz, CA (US)

(73) Assignee: **Media Rights Technologies, Inc.**, Santa Cruz, CA (US)

( * ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **13/831,380**

(22) Filed: **Mar. 14, 2013**

(65) **Prior Publication Data**

US 2013/0312120 A1 Nov. 21, 2013

**Related U.S. Application Data**

(63) Continuation of application No. 12/833,839, filed on Jul. 9, 2010, now Pat. No. 8,438,656, which is a continuation of application No. 10/772,031, filed on Feb. 3, 2004, now Pat. No. 7,802,095.

(51) **Int. Cl.**
| | |
|---|---|
| *G06F 7/04* | (2006.01) |
| *G06F 17/30* | (2006.01) |
| *H04N 7/16* | (2011.01) |
| *G06F 21/10* | (2013.01) |
| *G06F 21/60* | (2013.01) |

(52) **U.S. Cl.**
CPC .............. *G06F 21/60* (2013.01); *G06F 21/10* (2013.01)

(58) **Field of Classification Search**
CPC   G06F 21/10; G06F 2221/2135; G06F 21/105
USPC ...................................... 726/26–33; 713/164
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

| | | | |
|---|---|---|---|
| 4,525,599 A * | 6/1985 | Curran et al. ................. | 713/190 |
| 6,272,283 B1 | 8/2001 | Nguyen | |
| 6,298,446 B1 | 10/2001 | Schreiber et al. | |
| 6,385,596 B1 * | 5/2002 | Wiser et al. .................... | 705/51 |
| 6,920,567 B1 | 7/2005 | Doherty et al. | |
| 7,181,624 B2 | 2/2007 | Asano et al. | |
| 7,316,033 B2 | 1/2008 | Risan et al. | |
| 7,578,002 B2 | 8/2009 | Risan et al. | |
| 8,024,810 B2 | 9/2011 | Saito | |
| 2004/0123103 A1 * | 6/2004 | Risan et al. ................... | 713/164 |
| 2004/0133801 A1 | 7/2004 | Pastorelli et al. | |
| 2005/0192815 A1 | 9/2005 | Clyde | |
| 2007/0098177 A1 | 5/2007 | Asano et al. | |

OTHER PUBLICATIONS

Necula, George C., et al., ""Safe Kernel Extension Without Run-Time Checking"", *2nd Symposium on Operating Systems Design and Implementation; USENIX*; 1996; pp. 1-16, (1996),16.

* cited by examiner

*Primary Examiner* — Tae Kim

(57) **ABSTRACT**

A method for preventing unauthorized recording of media content on an Apple operating system (OS). The present method registers a compliance mechanism on a client system having the Apple OS operating thereon. The compliance mechanism comprises a framework for validating the compliance mechanism on the client system, and a multimedia component opened by the framework. The present method uses the multimedia component for decrypting the media content on the client system. The present method also prevents decryption of the media content on the client system having the Apple OS operating thereon if a portion of the compliance mechanism is invalidated.

**9 Claims, 26 Drawing Sheets**